AMENDMENTS TO THE CLAIMS

Claims pending

- At time of the Action: Claims 1-46.
- After this Response: Claims 1-5, 7-10, 13-15, 17-22, 24-26, 28-38 and 40-45.

Canceled or Withdrawn claims: 6, 11-12, 16, 23, 27, 39, and 46

Amended claims: 1, 7, 13, 17, 19, 24-25, 28, 40-41, and 43

New claims: None

1. **(Once Amended)** A method comprising:

creating a device template using a template language written in XML syntax; ~~and~~

defining, from the device template, a device description for a self-describing network device; and

automatically evaluating, via a computer software tool, whether the device description is well formed.

2. **(Original)** A method as recited in claim 1, wherein the template language is derived from XML schema.

3. **(Original)** A method as recited in claim 1, wherein the self-describing network device comprises a universal plug and play device.

4. **(Original)** A method as recited in claim 1, further comprising storing the device description on a computer-readable medium.

5. **(Original)** A method as recited in claim 1, further comprising:

creating a service template from a template language written in XML syntax; and

defining, from the service template, a service description for a service supported by the self-describing network device.

6. **(Canceled)**

7. **(Once Amended)** A method comprising:

creating a service template from a template language written in XML syntax; ~~and~~

defining, from the service template, a service description for a service supported by a self-describing network device; and

automatically evaluating, via a computer software tool, whether the service description is well formed.

8. **(Original)** A method as recited in claim 7, wherein the template language is derived from XML schema.

9. **(Original)** A method as recited in claim 7, wherein the self-describing network device comprises a universal plug and play device.

10. **(Original)** A method as recited in claim 7, further comprising storing the service description on a computer-readable medium.

11. **(Canceled)**

12. **(Canceled)**

13. **(Once Amended)** A method of describing a ~~universal plug and play~~ a self-describing network device, comprising:

storing a description of the self-describing network device, the description comprising a set of elements to describe the self-describing network device and an XML-based syntax that structures the set of elements such that, when the data structure is read by a computing device, the computing device can learn about the self-describing network device; ~~and~~

making the description available to the computing device; and

wherein the set of elements includes at least one of:

a first element to identify one or more versions of a template language;

a second element to identify the self-describing network device; and

a third element to specify a base universal resource locator (URL).

14. **(Original)** A method as recited in claim 13, wherein the storing comprises storing the description at the self-describing network device.

15. **(Original)** A method as recited in claim 13, wherein the self-describing network device comprises a universal plug and play device.

16. **(Canceled)**

17. **(Once Amended)** A method as recited in claim ~~16~~ 13, wherein the second element includes at least one of:

a first subelement to specify a type of self-describing network device;

a second subelement to identify a user;

a third subelement to identify a manufacturer;

a fourth subelement to specify a URL of a website for the manufacturer;

a fifth subelement to provide a word description of the self-describing network device for the user;

a sixth subelement to specify a model name of the self-describing network device;

a seventh subelement to specify a model number of the self-describing network device;

an eighth subelement to specify a URL of a website for the self-describing network device;

a ninth subelement to specify a URL of a website for a presentation hosted by the self-describing network device;

a tenth subelement to specify a serial number of the self-describing network device;

an eleventh subelement to specify a universal device name of the self-describing network device;

a twelfth subelement to specify a universal product code of the self-describing network device;

a thirteenth subelement to specify any icons associated with the self-describing network device;

a fourteenth subelement to identify any of one or more services supported by the self-describing network device; and

a fifteenth subelement to identify any of one or more devices embedded within the self-describing network device.

18. **(Original)** A method as recited in claim 13, further comprising storing a set of elements to describe at least one service supported by the self-describing network device.

19. **(Once Amended)** A method of describing a self-describing network device, comprising: ~~as recited in claim 18,~~

storing a description of the self-describing network device, the description comprising a set of elements to describe the self-describing network device and an XML-based syntax that structures the set of elements such that, when the data structure is read by a computing device, the computing device can learn about the self-describing network device;

making the description available to the computing device; and

storing a set of elements to describe at least one service supported by the self-describing network device, wherein the set of elements to describe the service includes at least one of:

a first element to identify any of one or more actions performed by the service; and

a second element to identify any of one or more state variables in the service.

20. **(Original)** A method as recited in claim 19, wherein the first element includes at least one subelement for each corresponding action, the subelement containing a name string to hold a name of the action and an argument list to hold parameters of the action.

21. **(Original)** A method as recited in claim 19, wherein the second element includes at least one of:

a first subelement to identify a name of a state variable;

a second subelement to specify a data type of the state variable;

a third subelement to specify a default value of the state variable;

a fourth subelement to enumerate legal string values; and

a fifth subelement to define bounds of legal numeric values.

22. **(Original)** A method as recited in claim 13, wherein the storing comprises storing the description at the self-describing network device, the method further comprising storing a set of elements to describe at least one service supported by the self-describing network device at a location remote from the self-describing network device.

23. **(Canceled)**

24. **(Once Amended)** A data structure stored on a computer-readable medium, the data structure being constructed according to an XML-based template language, the data structure comprising: ~~stored as recited in claim 23,~~

a set of elements to describe a self-describing network device; and

an XML-based syntax that organizes and structures the set of elements such that, when the data structure is read by a computing device, the computing device can learn about the self-describing network device;

wherein the set of elements requires:

a first element to identify one or more versions of the template language; and

a second element to identify the self-describing network device.

25. **(Once Amended)** A data structure stored on a computer-readable medium, the data structure being constructed according to an XML-based template language, the data structure comprising: ~~stored as recited in claim 23,~~

a set of elements to describe a self-describing network device; and

an XML-based syntax that organizes and structures the set of elements such that, when the data structure is read by a computing device, the computing device can learn about the self-describing network device;

wherein the set of elements includes at least one of:

a first element to identify one or more versions of the template language;

a second element to identify the self-describing network device; and

a third element to specify a base universal resource locator (URL).

26. **(Original)** A data structure stored as recited in claim 25, wherein the second element includes at least one of:

a first subelement to specify a type of self-describing network device;

a second subelement to identify a user;

a third subelement to identify a manufacturer;

a fourth subelement to specify a URL of a website for the manufacturer;

a fifth subelement to provide a word description of the self-describing network device for the user;

a sixth subelement to specify a model name of the self-describing network device;

a seventh subelement to specify a model number of the self-describing network device;

an eighth subelement to specify a URL of a website for the self-describing network device;

a ninth subelement to specify a URL of a website for a presentation hosted by the self-describing network device;

a tenth subelement to specify a serial number of the self-describing network device;

an eleventh subelement to specify a universal device name of the self-describing network device;

a twelfth subelement to specify a universal product code of the self-describing network device;

a thirteenth subelement to specify any icons associated with the self-describing network device;

a fourteenth subelement to identify any of one or more services supported by the self-describing network device; and

a fifteenth subelement to identify any of one or more devices embedded within the self-describing network device.

27. **(Canceled)**

28. **(Once Amended)** A data structure stored on a computer-readable medium, the data structure being constructed according to an XML-based template language, the data structure comprising: ~~stored as recited in claim 27,~~

a set of elements to describe a service supported by a self-describing network device; and

an XML-based syntax that organizes and structures the set of elements such that, when the data structure is read by a computing device, the computing device can learn about the service supported by the self-describing network device;

wherein the set of elements includes at least one of:

a first element to identify any of one or more actions performed by the service; and

a second element to identify any of one or more state variables in the service.

29. **(Original)** A data structure stored as recited in claim 28, wherein the first element includes at least one subelement for each corresponding action, the subelement containing at least one of a name string to hold a name of the action, an argument list to hold parameters of the action, and a data type of the parameters.

30. **(Original)** A data structure stored as recited in claim 28, wherein the second element includes at least one of:

a first subelement to identify a name of a state variable;

a second subelement to specify a data type of the state variable;

a third subelement to specify a default value of the state variable;

a fourth subelement to enumerate legal string values; and

a fifth subelement to define bounds of legal numeric values.

31. **(Allowed)** One or more computer-readable media, comprising stored thereon:

a first set of elements to describe a self-describing network device, the first set of elements being written in an XML syntax;

a second set of elements to describe a service supported by the self-describing network device, the second set of elements being written in an XML syntax; and

a code segment that, when executed, returns the first set of elements and at least a reference to the second set of elements to an entity requesting a description of the self-describing network device.

32. **(Allowed)** One or more computer-readable media as recited in claim 31, wherein the first set of elements are stored on a computer-readable media located at the self-describing network device and the second set of elements are stored on a separate computer-readable medium located remotely from the self-describing network device, but accessible via a network.

33. **(Allowed)** One or more computer-readable media as recited in claim 31, wherein the first set of elements includes at least one of:

a first element to identify one or more versions of the template language;

a second element to identify the self-describing network device; and

a third element to specify a base universal resource locator (URL).

34. **(Allowed)** One or more computer-readable media as recited in claim 31, wherein the second element of the first set of elements includes at least one of:

a first subelement to specify a type of self-describing network device;

a second subelement to identify a user;

a third subelement to identify a manufacturer;

a fourth subelement to specify a URL of a website for the manufacturer;

a fifth subelement to provide a word description of the self-describing network device for the user;

a sixth subelement to specify a model name of the self-describing network device;

a seventh subelement to specify a model number of the self-describing network device;

an eighth subelement to specify a URL of a website for the self-describing network device;

a ninth subelement to specify a URL of a website for a presentation hosted by the self-describing network device;

a tenth subelement to specify a serial number of the self-describing network device;

an eleventh subelement to specify a universal device name of the self-describing network device;

a twelfth subelement to specify a universal product code of the self-describing network device;

a thirteenth subelement to specify any icons associated with the self-describing network device;

a fourteenth subelement to identify any of one or more services supported by the self-describing network device; and

a fifteenth subelement to identify any of one or more devices embedded within the self-describing network device.

35. **(Allowed)** One or more computer-readable media as recited in claim 31, wherein the second set of elements includes at least one of:

a first element to identify any of one or more actions performed by the service; and

a second element to identify any of one or more state variables in the service.

36. **(Allowed)** One or more computer-readable media as recited in claim 35, wherein the first element of the second set of elements includes at least one subelement for each corresponding action, the subelement containing a name string to hold a name of the action and an argument list to hold parameters of the action.

37. **(Allowed)** One or more computer-readable media as recited in claim 35, wherein the second element of the second set of elements includes at least one of:

a first subelement to identify a name of a state variable;

a second subelement to specify a data type of the state variable;

a third subelement to specify a default value of the state variable;

a fourth subelement to enumerate legal string values; and

a fifth subelement to define bounds of legal numeric values.

38. **(Allowed)** One or more computer-readable media as recited in claim 31, wherein the code segment is configured to respond to an HTTP GET request by returning the description in a body of an HTTP response.

39. **(Canceled)**

40. **(Once Amended)** A self-describing network device as recited in claim ~~39~~ 41, wherein the description data comprises a first set of elements a first set of elements to describe the self-describing network device and a second set of elements to describe a service supported by the self-describing network device.

41. **(Once Amended)** A self-describing network device comprising: ~~as recited in claim 39,~~

a memory;

a description of the self-describing network device stored in the memory, the description comprising a set of elements written in an XML syntax to describe the self-describing network device; and

a processor coupled to the memory to submit the description to a remote entity on a network;

wherein the set of elements comprises at least one of:

a first element to identify one or more versions of ~~the~~ a template language;

a second element to identify the self-describing network device; and

a third element to specify a base universal resource locator (URL).

42. **(Original)** A self-describing network device as recited in claim 41, wherein the second element includes at least one of:

a first subelement to specify a type of self-describing network device;

a second subelement to identify a user;

a third subelement to identify a manufacturer;

a fourth subelement to specify a URL of a website for the manufacturer;

a fifth subelement to provide a word description of the self-describing network device for the user;

a sixth subelement to specify a model name of the self-describing network device;

a seventh subelement to specify a model number of the self-describing network device;

an eighth subelement to specify a URL of a website for the self-describing network device;

a ninth subelement to specify a URL of a website for a presentation hosted by the self-describing network device;

a tenth subelement to specify a serial number of the self-describing network device;

an eleventh subelement to specify a universal device name of the self-describing network device;

a twelfth subelement to specify a universal product code of the self-describing network device;

a thirteenth subelement to specify any icons associated with the self-describing network device;

a fourteenth subelement to identify any of one or more services supported by the self-describing network device; and

a fifteenth subelement to identify any of one or more devices embedded within the self-describing network device.

43. **(Once Amended)** A self-describing network device comprising: ~~as recited in claim 39,~~

a memory;

a description of the self-describing network device stored in the memory, the description comprising a set of elements written in an XML syntax to describe the self-describing network device; and

a processor coupled to the memory to submit the description to a remote entity on a network;

wherein the set of elements includes at least one of:

a first element to identify any of one or more actions performed by a service supported by the self-describing network device; and

a second element to identify any of one or more state variables in the service.

44. **(Original)** A self-describing network device as recited in claim 43, wherein the first element includes at least one subelement for each corresponding action, the subelement containing a name string to hold a name of the action and an argument list to hold parameters of the action.

45. **(Original)** A self-describing network device as recited in claim 43, wherein the second element includes at least one of:

a first subelement to identify a name of a state variable;

a second subelement to specify a data type of the state variable;

a third subelement to specify a default value of the state variable;

a fourth subelement to enumerate legal string values; and

a fifth subelement to define bounds of legal numeric values.

46. **(Canceled)**